

FOREWORD

By now virtually every technologist is aware that serious environmental consequences result from acidic rainfall. Indeed every American, aware or unaware, is impacted by its deleterious effects on our forests, lakes, lands, property, and personal health. Neither the technical nor political consequences stop at national borders. This is particularly the case in North America and in Europe; both, places where the problems with acid rain are being given serious attention.

This issue of the NBS *Journal of Research* is devoted to the topic of measurement methods, Standard Reference Materials, and associated statistical considerations for effective analysis of rainwater. Such methods and standards are essential to accurate assessment of current environmental conditions and will be needed in the future to assess trends that result from corrective measures. It goes almost without saying that equitable regulation will only be possible with fair (accurate) measurement. We think it is important to note that the authors of this issue, Drs. Koch, Marinenko and Paule, and Ms. Knoerdel, are all from NBS. Because NBS has no regulatory role, the work they report here is free from any particular pressure to favor the regulator or regulated.

The authors, together with more than a dozen of their colleagues in the Center for Analytical Chemistry, have provided an excellent measurement benchmark in SRM 2694, Simulated Rainwater. However, their contributions on the problem of acid rain extend beyond those described in this issue. The Center also makes available to the measurement community several Standard Reference Materials of coal and oil, certified for sulfur content, an important precursor to acid rain. We commend this issue to every reader concerned with the assessment of acidic rainfall.

Harry S. Hertz

**Director, Center for Analytical
Chemistry**

Stanley D. Rasberry

**Chief, Office of Standard Reference
Materials**